

Claim Amendments:

Claims 1-4 (canceled)

Claim 5 (previously amended) A concentric pipe joint constraint, said restraint resisting axial movement of a spigot pipe relative to a socket pipe within which a portion of said spigot pipe has been inserted, said spigot pipe and said socket pipe defining an annulus, said restraint comprising:

a spigot wedge ring comprising one or more spigot gripping protrusions;

socket wedge ring comprising one or more socket gripping protrusions;

a wedge housing positioning said spigot wedge ring relative to said socket wedge ring with which it is in effective contact in said annulus such that said spigot gripping protrusions grip said spigot pipe and said socket gripping protrusions grip said socket pipe;

wherein said spigot wedge ring further comprises a frusto-conical surface;

said socket wedge ring further comprises an opposed frusto-conical surface in effective contact with said frusto-conical surface;

the gripping protrusions are biased to prevent axial separation of the pipes;

the frusto-conical surfaces are biased to prevent axial separation of the pipes; and

an actuator driving said gripping protrusions into said pipes by imparting axial movement of said wedge rings relative to one another, said axial movement imparting sliding axio-radial movement of said frusto-conical surfaces relative to one another.

Claim 6 (previously amended) A concentric pipe joint constraint, said restraint resisting axial movement of a spigot pipe relative to a socket pipe within which a portion of said spigot

pipe has been inserted, said spigot pipe and said socket pipe defining an annulus, said restraint comprising:

a spigot wedge ring comprising one or more spigot gripping protrusions;

socket wedge ring comprising one or more socket gripping protrusions;

a wedge housing positioning said spigot wedge ring relative to said socket wedge ring with which it is in effective contact in said annulus such that said spigot gripping protrusions grip said spigot pipe and said socket gripping protrusions grip said socket pipe;

wherein said spigot wedge ring further comprises a frusto-conical surface;

said socket wedge ring further comprises an opposed frusto-conical surface in effective contact with said frusto-conical surface; and

wherein the gripping protrusions are biased to prevent axial compression of the pipes.

Claim 7 (Previously amended) A concentric pipe joint constraint, said restraint resisting axial movement of a spigot pipe relative to a socket pipe within which a portion of said spigot pipe has been inserted, said spigot pipe and said socket pipe defining an annulus, said restraint comprising:

a spigot wedge ring comprising one or more spigot gripping protrusions;

socket wedge ring comprising one or more socket gripping protrusions;

a wedge housing positioning said spigot wedge ring relative to said socket wedge ring with which it is in effective contact in said annulus such that said spigot gripping protrusions grip said spigot pipe and said socket gripping protrusions grip said socket pipe;

wherein said spigot wedge ring further comprises a frusto-conical surface;

said socket wedge ring further comprises an opposed frusto-conical surface in effective contact with said frusto-conical surface;

the gripping protrusions are biased to prevent axial compression of the pipes; and wherein the frusto-conical surfaces are biased to prevent axial compression of the pipes.

Claim 8 (Previously amended) A concentric pipe joint constraint, said restraint resisting axial movement of a spigot pipe relative to a socket pipe within which a portion of said spigot pipe has been inserted, said spigot pipe and said socket pipe defining an annulus, said restraint comprising:

a spigot wedge ring comprising one or more spigot gripping protrusions;

socket wedge ring comprising one or more socket gripping protrusions;

a wedge housing positioning said spigot wedge ring relative to said socket wedge ring with which it is in effective contact in said annulus such that said spigot gripping protrusions grip said spigot pipe and said socket gripping protrusions grip said socket pipe;

wherein said spigot wedge ring further comprises a frusto-conical surface;

said socket wedge ring further comprises an opposed frusto-conical surface in effective contact with said frusto-conical surface;

the gripping protrusions are biased to prevent axial compression of the pipes;

the frusto-conical surfaces are biased to prevent axial compression of the pipes;

and

an actuator driving said gripping protrusions into said pipes by imparting axial movement of said wedge rings relative to one another, said axial movement imparting sliding axio-radial movement of said frusto-conical surfaces relative to one another.

Claim 9 (Previously amended) The restraint of claim 6 wherein the frusto-conical surfaces are biased to prevent axial separation of the pipes.

Claim 10 (Previously amended) A concentric pipe joint constraint, said restraint resisting axial movement of a spigot pipe relative to a socket pipe within which a portion of said spigot pipe has been inserted, said spigot pipe and said socket pipe defining an annulus, said restraint comprising:

a spigot wedge ring comprising one or more spigot gripping protrusions;

socket wedge ring comprising one or more socket gripping protrusions;

a wedge housing positioning said spigot wedge ring relative to said socket wedge ring with which it is in effective contact in said annulus such that said spigot gripping protrusions grip said spigot pipe and said socket gripping protrusions grip said socket pipe; and

said spigot wedge ring further comprises a frusto-conical surface;

said socket wedge ring further comprises an opposed frusto-conical surface in effective contact with said frusto-conical surface;

wherein the frusto-conical surfaces are biased to prevent axial separation of the pipes; and

an actuator driving said gripping protrusions into said pipes by imparting axial movement of said wedge rings relative to one another, said axial movement imparting sliding axio-radial movement of said frusto-conical surfaces relative to one another.

Claim 11 (Previously amended) A concentric pipe joint constraint, said restraint resisting axial movement of a spigot pipe relative to a socket pipe within which a portion of said spigot pipe has been inserted, said spigot pipe and said socket pipe defining an annulus, said restraint comprising:

a spigot wedge ring comprising one or more spigot gripping protrusions;

socket wedge ring comprising one or more socket gripping protrusions;

a wedge housing positioning said spigot wedge ring relative to said socket wedge ring with which it is in effective contact in said annulus such that said spigot gripping protrusions grip said spigot pipe and said socket gripping protrusions grip said socket pipe;

said spigot wedge ring further comprises a frusto-conical surface;

said socket wedge ring further comprises an opposed frusto-conical surface in effective contact with said frusto-conical surface; and

wherein the frusto-conical surfaces are biased to prevent axial compression of the pipes.

Claim 12 (Original) The restraint of claim 11 further comprising an actuator driving said gripping protrusions into said pipes by imparting axial movement of said wedge rings relative to one another, said axial movement imparting sliding axio-radial movement of said frusto-conical surfaces relative to one another.

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Claims 13-69 (Canceled)